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ABSTRACT

The Western Suffolk (New York) Board of Cooperative Educational Services undertook a 3-year workplace basic education project that was designed to help workers develop four types of skills: traditional basic skills; other Secretary's Commission on Achieving Necessary Skills (SCANS)-type competencies such as problem solving, team work, and computer literacy; self-confidence; and job-specific technical skills. The program's approach was based on the following strategies: partnerships with local employers; initial and ongoing staff development; ongoing assessment of learners' needs and progress through a variety of assessment methods; customized instruction featuring authentic materials and examples from learners' day-to-day lives; and recruitment and retention activities. The project far exceeded its stated goals. More than 1,300 learners at 28 companies received instruction in English for speakers of other languages and SCANS-type basic skills. In addition to gaining specific basic and technical skills, many learners reported new interest in participating in training and educational opportunities inside and outside their workplaces. The education provider developed stronger links with employers and workers and gained new expertise in workplace education. (Appendixes constituting 50% of this document contain the following: summary of sites participating; schedule of 1997 information-gathering activities; and 12 site profiles.) (MN)

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Final Report for Evaluation of Western Suffolk BOCES Workplace Education Program

Submitted December 12, 1997
by
External Evaluator
Paul Jurmo, Ed.D.

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Executive Summary

Final Report for an Evaluation of the Western Suffolk BOCES Workplace Education Program

Prepared December 1997 by Paul Jurmo, Ed.D.

In 1994, Western Suffolk BOCES embarked on a workplace basic education project with employers and workers on Long Island, New York. In the subsequent three years, this national demonstration project, funded under the National Workplace Literacy Program of the U.S. Department of Education, has been successful in responding to the basic skills-related needs of 28 companies and their employees while also developing valuable insights into the practice of workplace education. Summarized below are key findings from the final evaluation report.

What the stakeholders hoped to accomplish

This project tried to respond to an ambitious mix of stakeholders and their expectations. Broadly stated, those involved wanted the program to help participating workers to improve particular skills and knowledge -- both "basic skills" and "technical" skills and knowledge -- which they would then presumably use to improve their own lives (on and off the job) and/or improve the organization in some way. This broad goal is further broken down below:

1. help participating workers to improve particular skills and knowledge, including . . .

a. traditional basic skills: (oral English, reading, writing, and math)
b. other SCANS-type competencies (including problem-solving, teamwork, and computer literacy);
c. self-confidence (willingness to take on new challenges);
d. particular technical knowledge (e.g., how to repair a particular machine, how to use the company insurance plan).

2. which they in turn can use to:

a. improve their own lives on the job (e.g., qualifying for promotions and further training, feeling more comfortable communicating with co-workers, knowing how to use company benefits) and off the job (e.g., helping their children with schoolwork, knowing how to get a car loan or use an ATM).
b. improve the work organization (e.g., improve productivity, safety, etc.)

The project was to provide "basic" level education services to a minimum of 200 workers and more-advanced skill training (including GED preparation) to at least 100 other workers.

What was accomplished

Feedback from project partners indicates that:

• In terms of quantity of services provided, the project far exceeded the stated goals and served over 1300 learners in 28 company sites.

• English for speakers of other languages (ESOL) classes were the most frequent type of instructional activity. This reflects the make-up of the Long Island blue collar workforce and is an area of particular concern to employers.

• The project also focused on other "SCANS-type" basic skills, including math, writing, reading, and problem-solving, for both limited-English-proficient workers and native English speakers.

• Most instruction was "contextual" in nature, with learners practicing day-to-day uses of the above basic skills of concern to them and their employers.

• Responding to stated wishes of both employees and employers (and to what instructors considered to be sensible, good practice), most instructors wove a mix of specific job tasks (e.g., writing memos, SPC-related math), more-general work-related topics (e.g., how to call in sick, how to fill out an insurance form), and non-work-related uses of basic skills (e.g., how to use an ATM, get a loan, or help one's children with schoolwork) into learning activities.

• Because many different companies, types of industries, and workforces were represented in the project, a corresponding mix of learning needs and instruction emerged over the three years. This mix was, on one hand, appropriate and stimulating (a rich source of information and ideas about workplace education on Long Island) and, on the other, a challenge (i.e., no one assessment tool or set of learning materials were appropriate for more than a few of the many sites.)

• Much of the instruction was of short duration, making it difficult to state definitively how much was learned, retained, and used by workers. As

would be expected, the companies and learners which invested more time in the project tended to gain more from it. However, all sites interviewed cited positive results from their experience in the project.

• In addition to gaining specific basic and technical skills, many learners reported a new interest in participating in training and educational opportunities inside and outside their workplaces. In particular, many of the workers who participated in ESOL classes were very grateful for what they saw as a unique opportunity to improve their English skills and feel more comfortable in their workplaces and in their communities outside. Many of the companies also reported a new awareness of and interest in the notion of workplace basic education as a component of their organizational development initiatives.

• The education provider also benefitted from the program by (a) making stronger links with employers and workers who might use the BOCES' educational services in the future, (b) expanding on BOCES staff's expertise in workplace education, and (c) gaining new allies among area employers and workers for possible future advocacy for workplace education and training.

What practices were used

BOCES staff drew on their previous experience and on practices developed by others to create an "approach" to workplace education which had these components:

Building partnerships: BOCES staff reached out to recruit local employers, identified organizational and learner needs, negotiated expectations and guidelines, and kept in touch to sustain communication and deal with needs as they emerged over time.

Developing staff: BOCES provided considerable up-front and on-going staff development opportunities in the forms of workshops, site visits, staff meetings, and resource materals.

Identifying learning needs and progress: BOCES staff used a variety of assessment tools (especially task analyses, standardized tests, and portfolios) to generate evidence of learner needs and progress. The resulting information was used primarily by instructors to determine starting points for instruction and to track progress.

Developing curriculum: With the help of BOCES administrators, instructors created customized instruction by pulling together existing instructional materials with authentic materials and examples taken from learners' day-to-day lives. Key elements of successful learning were the creativity, commitment, and time of the instructors involved.

Recruiting and retaining learners: In most sites, learner participation was voluntary and at least in part on company time. The more successful sites tended to provide comfortable meeting space and encouragement through such "nice touches" as refreshments, visits to classes by managers, informal "graduation ceremonies," and -- most importantly -- a clear link between the education program and other opportunities (especially for training and job advancement) within the company.

Factors which supported success

The evaluator concludes that the following factors led to positive results in this project:

- *Well-prepared and -supported staff*
- *Clear goals and a process for setting them*
- *Active involvement of learners and companies*
- *Curricula relevant to stakeholder needs*
- *Learning facilities supportive of learning*
- *Links to learning opportunities outside the individual workplaces*

Next steps to build on lessons learned

Western Suffolk BOCES should build on the positive lessons learned in this project and consider the following steps to (a) further strengthen BOCES workplace education efforts and (a) disseminate useful products to the workplace education field.

To strengthen BOCES' workplace education efforts . . .

- *Carefully factor the lessons learned in this project into future planning.*
- *Establish satellite centers to reach out to more sites.*
- *Get companies involved as advocates.*
- *Emphasize strong partnerships with partners who are ready to do their share.*
- *Link up with other workplace educators in New York.*
- *Develop a menu of services responsive to multiple types of customer learning needs.*
-

To disseminate useful products to the field . . .

- *Develop a manual profiling "best practices" culled from this project.*
- *Use this manual to train BOCES staff and to inform potential partners and funders about what constitutes good practice in workplace education.*
- *Make this manual available via conference presentations, the Internet, or journal articles.*

SECTION I

The Evaluation's Purposes, Audience, Research Questions, and Methodology

The need for an evaluation

As a recipient of a three-year grant from the National Workplace Literacy Program (NWLP), Western Suffolk BOCES (WSB) was required to conduct an evaluation of the workplace basic education services it conducted with partner companies on Long Island from 1994 through 1997.

In the first year of the grant, evaluation services were provided by a nearby research firm, Metis Associates. A first-year evaluation report was primarily "summative" in nature, focusing on numbers of sites and learners served and courses provided. There was also a summary of feedback from employers about their satisfaction with the program and examples of various job-related improvements they identified.

In spring 1997, workplace education specialist Paul Jurmo (executive director of the New Jersey-based nonprofit organization, Learning Partnerships) was hired to carry out an end-of-project evaluation, with a special emphasis on what was achieved in Years 2 and 3 of the project. It was agreed that he also try to expand on the information provided in the first year evaluation report. This end-of-project evaluation would (a) meet NWLP reporting requirements and (b) provide summative and formative evaluation information of use to the grant partners and to the workplace education field as a whole. The project director and Dr. Jurmo agreed that the audiences and focal points for the evaluation would be as follows :

Audiences for the evaluation

Primary audiences:

- Western Suffolk BOCES("WSB") staff who administer and teach in the project;
- The US Department of Education (which funds the project via the National Workplace Literacy Program);
- Participating companies (and unions, if any);
- Participating workers.

Secondary audiences:

- Other workplace educators, researchers, and policy makers within and outside New York State interested in learning from the project;

• Companies and unions with whom WSB might work in the future.

The information to be generated

The evaluation would generate a mix of "outcome-related" and "formative" information organized around the following research questions:

Outcome-related questions

1. What were the intended outcomes of this project? (That is, what did the various key stakeholders in the project say they hoped the project would achieve?)

2. What was in fact achieved?

   a. To what degree and in what ways were those intended outcomes achieved?
   b. What if any additional unforeseen outcomes were produced by the project?

"Formative" (process-related) questions

1. What were the components (processes) which WSB put in place to plan and provide services? In particular:

   a. How were site-level partnerships formed and sustained?
   b. How were staff selected, prepared, and supported?
   c. How were learning-related goals identified?
   d. How were instructional and other services developed to meet those goals?
   e. How were individual needs, abilities, and progress documented and responded to?
   f. How were learners recruited and supported to participate in learning activities and then to use what they learned back on the job?

2. What factors facilitated or blocked attainment of positive outcomes?

3. What steps might various stakeholders take in the future to build on the lessons learned in this project?

Methodology: How the information was collected, analyzed, and reported

In 1997, the evaluation consultant collected information about the project through interviews with the project administrators and instructors, review of project documents, and interviews with management representatives and learners. Through site visits, he developed more-in-depth information about twelve of the 28 sites which participated in the project. (See Appendices.)

In late summer, the evaluator prepared a summary of the information collected in the above activities, organizing the information according to the evaluation questions.

Shown below is a summary of the evaluator's findings, along with the evaluator's interpretations of what was achieved and the practices used and recommended actions which various stakeholder groups might take to build on what was learned in this three-year research-and-development project.

Note that, because the evaluator was brought into the project mid-way through the third year of the project, the evaluation has the following limitations:

- The evaluator had to rely primarily on information he was able to collect from sites after most instructional activities had ended.
- There were only limited pre- and post- measures of worker skills available and information about whether and how workers were applying their new skills and, if so, what the impact of those skill applications has been.
- The evaluator was not able to interact with sites to monitor program progress over the life of the project. He has had to rely primarily on after-the-fact reflection by human resource managers, instructors, and some learners, and on figures supplied by WSB about numbers of sites, instructional hours, and learners.
- The project operated in 28 different workplaces, spread out in two counties over three years. Tracking each of those sites closely would have been very difficult even if more evaluation resources had been available.

However, while these limitations have led to gaps in the information the evaluator had to work with, his interviews with representatives from a significant sampling of the large number (28) of sites did nonetheless produce rich information upon which conclusions can be drawn. That information and those conclusions are the core of this report.

SECTION II

Information gathered and evaluator's interpretations

Outcome-related questions

1. <u>What were the intended outcomes of this project? (That is, what did the various key stakeholders in the project say they hoped the project would achieve</u>?)

In workplace basic skills programs, there are typically a number of stakeholders involved, each of whom has a number of purposes for the educational activities in mind. This project was no different.

The various expectations which the education provider, funder, employers, and workers brought to the project are outlined below:

<u>What the proposal said</u>: The original project proposal stated the project goals in general terms of helping workers develop skills they need to deal with changing job requirements in current and future jobs resulting from new technologies and higher quality standards The particular skills/competencies to be taught would vary from site to site, but would fall into the categories of "basic skills" (e.g., writing, reading, math, English for Speakers of Other Languages, or ESOL), "team building," and "advanced skills" (e.g., computer literacy, engineering principles, information processing, and TQM-related knowledge.)

The proposal indicated that, by helping learners to develop these competencies, the project would have the following benefits for the participating workers and companies:

<u>Benefits for individual workers</u>: Improvements in job security, opportunity for promotion, self-concept, employment options, and ability to participate effectively in community and society.

<u>Benefits for participating companies</u>: Improvements in productivity, error rates, return and scrap rates, customer satisfaction, profit margins, ability to meet technological demands, stability of workforce, and public image.

The proposal stated that, in Year 1, the project would provide basic skills-level training to 200 workers and more-advanced-level job-readiness training (including GED and career-planning activities) for 100

additional workers.

What WSB staff said

WSB Administrators

The WSB project director indicated that the project goals were:

1. to help low-level employees on Long Island gain skills for continued employment (in their current workplaces and perhaps in others, especially if "downsized") and for personal growth.
2. to expose local companies to WSB's services in case those companies are interested in continuing working with WSB in the future.
3. (as an added benefit) to provide learners with skills they can use outside the workplace in their roles as consumers, family members, and citizens.

What five instructors said

Instructor A described the goals she focused on at four of the sites at which she taught:

At Monitor Aerospace, the focus of her eight classes was basic ESOL, with special emphasis on terminology (e.g., procedures and equipment) used in the workers' jobs. Woven into this was discussion of how workers used similar tools outside work. Instruction also focused on safety procedures, payroll questions, benefits, and how to call in sick and related non-job-specific topics like how to get a car loan. Workers seemed to be particularly motivated to learn how to communicate with their supervisors, so they didn't "look foolish."

At the Marriott Hotel, the company did not make clear what the instruction should focus on or whether the company had a plan for incorporating the ESOL program for housekeeping staff into a larger human resource development plan.

Todd Industries focused on basic ESOL and readiness for work. For example, learners would do role plays about safety-related situations, coming to work on time, the work ethic, and calling in sick, but instruction didn't get into specifics of various jobs. In part this was due to the fact that the Latino workers didn't really need English to carry out their day-to-day work as electronics assemblers whose supervisors generally also

spoke Spanish.

At E/Beam, the curriculum was similar to that used at Todd Industries: a focus on ESOL to help workers understand broad company policies and procedures (e.g., calling in sick, overtime policy, tax deductions). Discussions also focused on non-workplace-specific ESOL functions like understanding a lease and reading a medical prescription. (These latter non-workplace-specific topics were taken from an ESOL textbook.) Learners were also encouraged to talk about their own lives, as this generally was motivating for learners.

Instructor B explained that his three classes at Dimac Direct have focused on helping "mechanics" (i.e., those who maintain the mail-sorting machines used in this direct-mail distribution facility) understand the concepts, terminology, and math involved in the maintenance of the machines. Many of the mechanics were foreign-born and of limited English proficiency. Instruction was thus a mixture of language, math, and technical skills, with a heavy focus on the skills needed to maintain the equipment used at Dimac Direct.

Instructor C described her work at Huntington Hospital, where hospital staff had told BOCES staff that limited-English-proficient housekeeping staff needed to be better able to communicate with nursing staff and patients. In the resulting classes, learners discussed hospital situations (e.g., an examining room as depicted on a chart) and how they would deal with them. Learners were, however, most interested in discussing "everyday living" topics (e.g., the supermarket, school, their children's teachers). Learners learned how to ask questions (e.g., for clarification) in situations where they needed to use English.

Instructor D said that, at Gasser and Sons, her basic math classes focused on fractions, decimals, and tolerances, to prepare workers to participate in a more-advanced blueprint-reading course. (Workers operated precision-machine-parts-manufacturing equipment.) She tried to make the instruction as job-related as possible, by bringing in job-related examples and math needed to calculate overtime, file insurance claims, and deal with other money-related problems (which motivated learners a lot). Materials were a mix of teacher-made exercises and prepackaged math workbooks. Many of the learners were limited-English-proficient and of a low educational background in their home countries. Many of the foreign-born had learned different

approaches to math back home, too, making instruction even more of a challenge for the American-born instructor.

Instructor E described two sites at which she taught:

> At JACO Electronics, classes focused on a mix of (a) technical information(e.g., the date-code system used to track items in this electronic-parts warehouse; (b) social/interpersonal communications (e.g., how to communicate with supervisors around workplace problems); and (c) career planning (to help learners explore other educational and career options). .
>
> At Computer Associates, the ESOL classes for higher-level (white collar) employees focused on English needed on and off the job. For example, learners practiced giving directions to co-workers or to community members, using situations they encounter at work or out in the communities where they live. Work-related tasks included conducting interviews with clients, writing business memos, or dealing with personal insurance claims or vacation schedules.

In a focus group, instructors representing a dozen sites said that the objectives varied from site to site, but tended to be a mix of job-related basic skills and non-job-specific skills (e.g., using an ATM machine, using the public library). Focusing on the latter non-job-specific skills was generally seen as a way to foster interest in learning, further education, and practice of what is learned in a variety of life contexts.

What nine business partners said

Representatives of three participating companies indicated that their companies had entered into agreements with WSB to achieve the following goals:

> Monitor Aerospace most wanted to help foreign-born workers to develop communication and technical skills to help workers understand and participate in particular work processes and use standards to help the company maintain a leading position in the manufacture of aerospace parts. The company wanted employees to be able . . .
>
> . . . to talk with supervisors about questions, problems, or hazards;
> . . . to improve particular job-related technical skills and know job-related terms (e.g., first aid, deburring, safety, measuring, error rate reduction);
> . . . to do blueprint reading and shop math (e.g., SPC);

. . . to go on for further education and training to help them meet their maximum potential.

The workers were seen as generally highly-motivated to achieve those objectives, as the company invests a lot in employee development.

Dimac Direct wanted to help primarily-immigrant workforce to be able to . . .

. . . understand company policies (e.g., incentive systems, getting permission to leave machines, reporting of accidents), benefits, personnel procedures (e.g., calling in sick), technical procedures (e.g., how to sort mail, repairing of sorting machines), and safety procedures (operating hi-lo's, lifting).

. . . develop skills in math (e.g., budgeting), oral communications, and writing (e.g., memos, performance reviews, justifications for new capital expenditures) which they would need to move into supervisory-level positions.

Huntington Hospital wanted to help housekeeping workers prepare for "re-engineered" jobs in which they will have to take greater responsibility for patient care (e.g., recording patient liquid input, talking with patients). The hospital is following a trend in the health-care industry by restructuring jobs in this way, but acknowledges that many of its current housekeeping staff lack the English language skills needed for roles which require better communication with nursing staff and patients. The hospital wants to keep good workers and give them chances to move into better jobs.

A manager at Gent Uniform said he would like to provide his employees with "English for personal and professional advancement," to help employees qualify for better jobs and to go on for more education.

The Marriott Windwatch and Uniondale Hotels wanted to give employees a "taste" of English language instruction. Instruction was to focus primarily on "general" English skills, with some hotel-specific vocabulary and concepts also included.

Photocircuits Corporation also wanted its ESOL activities to help with "general" English skills, with some work-related vocabulary for more-advanced learners. The company also wanted the ESOL program to help set a "tone" (expectation) that the company now wanted workers to learn and use English.

Spellman High Voltage Electronics Corporation wanted the ESOL program to help improve (a) general communications between English-speakers and limited-English-proficient workers; (b) promotability of immigrant workers; (c) productivity (especially through error reduction); and (d) immigrant workers' abilities to pass technical tests.

Todd Products wanted the ESOL program to help reduce slowdowns which result when workers have to translate for each other. The company also wanted to provide an educational benefit and to create opportunities for professional and personal growth.

What learners at five sites said

Learners at Computer Associates said they were motivated to learn English for their jobs (where good job performance and advancement depend on fluency in English) and for personal reasons (e.g., they were likely to continue living in the U.S. and want to be part of the larger society and to help their children succeed in school). They thus welcomed any help they could get to master English.

Dimac Direct learners indicated that they appreciated the classes related to electrical-machine maintenance, as they focused on skills which they could put to immediate use back on the job.

Huntington Hospital housekeeping staff generally said they valued ESOL classes which prepared them for (a) possible advancement into the new jobs to be opening up in the future, (b) helping their children and grandchildren succeed in school, and (c) further educational opportunities (e.g., using computers).

JACO Electronics learners said they valued classes which helped them with (a) technical knowledge they need for their jobs, (b) interpersonal communications skills (especially to avoid conflicts with supervisors), and (c) career-planning help which helped them to clarify how to get further training for career advancement.

A learner at Gent Uniform said that she and fellow learners wanted to learn English so they can fit in (communicate with and understand the world around them) both at work and outside work. For example, she would like further education around such topics as citizenship rights, legal rights, medical English, talking with schoolteachers, and consumer rights.

Summary of responses to Question #1:

This program involved several different stakeholder group, hundreds of individuals, and 28 workplaces of various types, many of which were undergoing restructuring and introducing new technologies and other changes during the past three years. As might be expected in a project with so many perspectives represented, there were a number of hoped-for outcomes represented. These various intended outcomes are categorized and summarized below:

Most involved wanted the program to help participating workers to improve particular skills and knowledge which they would use to improve their own lives (on and off the job) and/or improve the organization in some way. This broad goal is further broken down below:

1. help participating workers to improve particular skills and knowledge, including . . .

a. traditional basic skills:
- *(oral English (listening and speaking)*
- *reading*
- *writing*
- *basic math*

b. other SCANS-type competencies (including problem-solving, teamwork, and computer literacy);

c. self-confidence (willingness to take on new challenges);

d. particular technical knowledge (e.g., how to repair a particular machine, how to use the company insurance plan).

2. which they in turn can use to:

a. Improve their own lives . . .

On the job through improved ability to:
- *hold their current job and/or get a better job*
- *follow safety procedures*
- *understand and use benefits, insurance, the payroll system, sick time and vacation.*
- *feel comforable talking with fellow workers of different language backgrounds*
- *pass technical tests and qualify for further training and education.*

• handle particular tasks.

Off the job through improved ability to participate in various life roles, especially:
• as consumers (e.g., getting a car loan, understanding a lease, using an ATM machine)
• as family members (e.g., following medical procedures, dealing with one's children's schoolteachers)
• as citizens and community members.

b. Improve the work organization by:

• improving productivity
• imrproving ability to run and maintain machines
• reducing error rates
• reducing scrap rates
• improving customer satisfaction
• improving profit margins
• improving the stability of the workforce and retaining of good workers
• improving the company's public image
• identifying how to improve particular operations (e.g., inventing a date-coding system)
• improving communication among different groups and levels
• helping set a higher standard for what is expected of workers.
• reducing time spent on translating or re-explaining
• reducing conflicts among workers.

The project proposal also stated that 200 workers would get access to basic-skills-related services and another 100 would participate in more-advanced-level job readiness trining (including getting a GED and career planning).

2. What was in fact accomplished? That is, (a) to what degree and in what ways were the intended outcomes achieved and (b) what if any additional unforeseen outcomes were produced by the project?

a. Whether and how the intended outcomes were achieved

Feedback from the WSB administrators, learners, managers, and instructors referred to above indicates that this three year project has generally been successful in meeting the goals set by the various stakeholders. More specifically:

Quantity of services provided: The program served approximately 1353 learners in 28 sites. (Note that a small number of learners -- estimated by WSB as about 25-30 -- might have participated in more than one class.)

Of those 1353 learners, approximately 526 (39%) participated in "basic skills" classes and approximately 827 (61%) participated in higher-level services (which included more-advanced levels of ESOL, math, and reading and writing, along with subjects more "technical" in nature like safety and uses of particular equipment). This more than meets the stated goals of serving 200 low-level and 100 more-advanced-level learners.

Skills focused on:

The specific content of the instruction varied depending on the type of jobs being dealt with, whether the learners were native English speakers, and the skill level of the learners.

English as a second language skills (listening, speaking, and some reading and writing) were the most common focal points for instruction (This was the focus in 24 (86%)of the 28 sites and for 635 (47%) of the 1353 learners.) This reflects the make-up of the Long Island blue collar workforce and is an area of particular concern to employers.

Shown below is a breakdown of the areas of skill and knowledge covered by the sites:

Work-related skills and knowledge

Basic skills . . .

. . . For specific jobs

- *Interpersonal communications and problem-solving (with supervisors and customers)*
- *Math (including statistical process control-related math)*
- *Writing (e.g., memos, performance reviews, justifications for capital expenditures)*

. . . For general functioning in the workplace

- *work readiness (work ethic)*
- *safety (first aid, reporting accidents)*
- *payroll (tax deductions, overtime)*
- *vacation policies and procedures*
- *insurance procedures (e.g., filing a claim)*

- *incentive systems*

Technical skills and knowledge for particular jobs

Blueprint reading
Electrical repair
Deburring

Career planning

Setting goals and developing strategies for future jobs and further education and training

Non-work-specific skills and knowledge

- *using a computer*
- *helping kids with schoolwork*
- *using the library*
- *getting a car loan*
- *understanding a lease*
- *understanding medical prescriptions*
- *going to the supermarket*
- *using an ATM machine*

Skill improvements seen Anecdotes provided by managers, learners, and instructors indicated that virtually all sites were successful in helping most of the learners who stayed with the courses make some gains in the areas they studied. Most sites also used some sort of standardized test, but those tests did not provide the evaluator with quantified data on skill gains.

The limited usefulness of standardized tests is because (a) many sites used the tests only as a pre-test for placement purposes (and thus didn't produce pre- and post- evidence of longitudinal changes in skills), (b) the data which were generated were used primarily by the instructor for placement purposes rather than being stored in ways that made them easily accessible to outsiders like the evaluator, and (c) the tests in many cases didn't focus on the particular applied skills covered in the courses (e.g., they tested knowledge of oral English in broad terms but not the specific forms of English and the work-related knowledge used in a particular worksite).

The evaluator notes that the above difficulties in producing clear, reliable data about skill improvements are typical in workplace education programs. These difficulties are due to a number of factors, including (a) limited time available for instructional staff to develop and carry out customized assessment activities geared directly to the contextualized uses of basic skills being focused on in the programs, (b) a tendency for

many instructors, learners, and employers to be satisfied with less-formal evidence of program impact (i.e., "We can see the changes with our own eyes. We don't need a 'test' to tell us what is being achieved."), (c) a concern by some educators (and employers) that testing workers will have a negative effect of scaring them away from participating in the program, and (d) a lack of training for instructors in effective ways of assessing work-related basic skills.

This program also was inhibited by the fact that it was spread out over many different types of industries in geographically-dispersed sites where in some cases workers were available for only a small number of instructional hours. These facts made it difficult for instructors to do detailed, systematic assessments geared to the many different workforces, types of basic skills, and workplace contexts represented in the sites.

Impact on learners' lives

- On the job:
  Virtually all sites stated that workers were benefitting personally in terms of their understanding of (feeling a part of) the workplace culture and ability to take advantage of company benefits.

- Off the job:
  The majority of workers interviewed stated that they were making use of their new skills outside the workplace in their roles in their families and communities.

Impact on workplace operations

Anecdotes provided by learners, managers, and instructors suggest that many learners (a) have tried to use what they have learned back on the job and/or (b) are more involved in and enthusiastic about their jobs.. The frequency of those changes in worker behavior varies by learner and worksite, depending on:

- *the motivation of the learners and organizations;*
- *the nature of the work involved (ie., whether there are real needs and opportunities for learners to use what they learned);*
- *the skill level of the learners (i.e., beginning ESOL learners will understandably usually have more difficulty using what they've learned than an advanced-level native English speaker).*

While most sites indicated that workers were now trying to use their skills back on the job, sites were generally not able to point to tangible improvements in workplace operations as a result. This is not to

say that there were in fact no such improvements; rather this lack of evidence of workplace improvement was possibly due to the fact that there were few assessment mechanisms in place to track whether and how workers were using their new skills back on the job.

In some cases, however, there might in fact not have been much tangible change in workers' job performance even if they had in fact improved their basic skills in the education program. This lack of change in workers' job performance might be due to a number of factors, including:

(a) The company wasn't aware a workplace often has to change how it operates in order to accomodate workers' new skills. (For example, a company might historically have had an organizational culture in which Spanish-speaking workers were assumed not to have strong basic skills in English; no one was thus prepared to speak English to those workers even if they improve their English skills in an ESOL class.)

(b) Workers themselves might not have the self-confidence to take the risk of using the new skills they've acquired, even if co-workers and managers are eager to encourage them to do so.

Finally, there is a real possibilility that workers made only incremental changes in their skills, because the amount of time they participated in learning activities was quite small. For example, for a beginning-level ESOL learner to make significant, lasting improvements in her/his English skills requires much more than 20 or 30 hours in an ESOL classroom. The learner needs considerable practice using those skills outside the classroom, as well as further participation in formal instruction.

For the above reasons, it is understandable if employers were not readily able to cite significant changes in workplace operations as a result of the classes hosted in their companies. Put another way, such changes in workplace operations should not be seen as the primary criterion for judging whether the instruction provided in this program was of high quality. In fact, it appears that there has been a good deal of high-quality instruction given in this program, but -- for the above reasons -- there is only limited clear evidence of improvements in workplace operations as a result.

It should be noted that among participating companies and workers there appear to be a greater awareness of and interest in worker education as a result of this program. Monitor Aerospace and Dimac Direct, for example, indicated that this experience with WSB has helped them decide to continue to invest in this kind of worker education and training; at least one other site (Huntington Hospital) said that it would like

to continue with some kinds of worker education and training but needs guidance from WSB staff about which areas to focus on. Most companies and learners in fact cited an interest in continuing such education programs if funding could be secured internally or from an external source. This was a significant change in company human resources policy which should not be overlooked.

Expansion of WSB's potential market

As companies increased their awareness of the potential of workplace basic education through participating in this program, WSB appears to have been successful in expanding the market for adult education services to new companies and learner populations:

- WSB has established new relationships with the companies which participated in the project. Many of these companies have shown an interest in continuing to work with WSB, whether under funding from another grant source or paid for by the companies themselves.
\
- WSB has also developed expertise and connections to other companies which it can now use to expand workplace education services.

- WSB has also established relationships with the workers who participated in the program and, indirectly, with their families and communities. These are all potential markets for future adult education services to be provided by WSB.

(b) Additional unforeseen outcomes produced by the project

New expertise among providers. During these three years, WSB staff and some of their company partners developed considerable new expertise in the area of workplace education. This was done through formal staff training programs conducted by WSB and through considerable hands-on experience in the field. This was not formally stated as an intended outcome in the project proposal. However, this was a real positive outcome.

Workers and employers as advocates. A number of company partners and learners participating in the project emerged from the project with a new awareness of and support for the concept of adult basic education in and outside the workplace. Several company representatives stated that they would like to see these kinds of programs continue and would be willing to advocate within their companies or to external funders for continued support for worlplace education. Several learners also stated their hope that such learning

opportunities would be continued. They stated their willingness to write letters of support to government funders.

"Formative" (process-related) questions

1. What were the components (processes) which WSB put in place to plan and provide services?

a. How were site-level partnerships formed and sustained?

In most cases, partnerships were developed through outreach activities initiated by WSB staff who (a) contacted potential sites to explain WSB services, (b) clarified what basic skills-related needs the sites might have through interviews with site representatives and on-site observations, (c) designed and implemented instructional activities geared to those needs, and (d) sustained the relationship through periodic interactions with company representatives and regular meetings with WSB instructors.

b. How were staff selected, prepared, and supported?

Over the course of three years, the amount and types of training and support given to the various instructors involved in the program varied considerably. In the first year of the program, there was some initial training given to instructors in principles and methods of contextualized learning. As is true in most workplace education efforts, much of the expertise used by instructors, however, depended on their previous experience as educators and (for some) their experience in various workplace contexts. (A number of WSB staff had previously worked in various kinds of companies in non-educator roles and thus had a working undertanding of how a typical company is run.)

Staff also meet for monthly meetings to give updates and provide peer feedback. However, many staff were unable to attend regularly due to schedule conflicts or other reasons. (A few instructors were also able to observe other instructors in action in their workplace classes, to pick up ideas.)

WSB also has a resource room with sample workplace curricula developed within WSB sites and elsewhere. Staff generally feel this is a useful resource.

Because of the decentralized, constantly-changing nature of the multi-site project, instructors benefitted from the presence of a workplace learning curriculum specialist who continually worked with instructors to plan, carry out, revise, and document instruction geared

to emerging needs and opportunities at each site. This kind of relevant, customized instruction is what employers and learners ask for.

c. How were learning-related goals identified?

Learning goals generally were identified in formal upfront task analysis discussions and subsequently through ongoing communications among instructors, learners, and management representatives. Typically, the initial discussions identified broad goals, and then instructors -- by getting to know learners and the workplace through time spent on-site -- identified more-specific learning interests which in some cases departed significantly from what the initial needs assessment indicated.

d. How were instructional and other services developed to meet those goals?

Instructors used their own creativity, prior experience, and WSB-provided training to create instruction suited to their respective sites. They tended to merge pre-packaged curricula (e.g., found in ESOL textbooks) with exercises focusing directly on tasks and vocabulary taken from learners' lives on and off the job.

e. How were individual needs, abilities, and progress documented and responded to?

Most sites used some form of standardized tests as an initial assessment tool, but most instructors said that those tests provided at best a ballpark estimate of learner needs and, in some cases, were off the mark altogether. Instructors tended to rely on their observation of learners and on informal assessment exercises to get a sense of the skill level of learners. In many cases, for scheduling or other reasons, learners of various levels were put into a single class, something that many instructors felt makes teaching more difficult.

Some instructors recommended that instructors be involved in any initial task analyses and individual assessments, so that they can have a better understanding of the workplaces and individuals they are to work with. (Involving instructors in needs assessment was in fact WSB policy.)

Some sites used a modified portfolio process to store learner writings in a folder for later review with the learners. Most assessment that was done was "informal" (not highly systematic), "authentic" (using real-world activities and samples of learner work), and for the benefit of the instructor and learner (rather than to be presented to anyone else). In some cases, management representatives participated in learning sessions or talked with the instructor privately, and thereby observed and assessed whether and how learners were

benefitting from the instruction.

Some managers asked for more concrete feedback from WSB staff about what was happening in the classes and what should happen next. Many managers appeared to be close enough to the workers and to the education program to see with their own eyes what was being gained. Some managers appeared to trust the feedback they got from learners about what is being achieved in the classes and trust that, if they aren't getting anything out of the classes, learners are likely to "walk."

Mid-level managers generally aren't pressured to provide much information about the classes to decision-makers further up the corporate ladder. Higher-level managers seemed content with the anecdotal evidence they got from mid-level managers. (This might change, however, if companies have to pay for these educational programs entirely themselves after federal funding runs out.)

f. How were learners recruited and supported to participate in learning activities and then to use what they learned back on the job?

Again, this varied from site to site. Some sites made participation mandatory. (In the worst case, an English-speaking worker from the West Indies was mistakenly placed in an ESOL class by the employer, because he had an accent and an "attitude" rather than because he didn't understand English. Predictably, his "attitude" or English didn't improve.)

Most other sites appear to make participation voluntary, and -- where instruction is respectful of learners and focused on skills they want -- attendance and motivation are high.

In another "bad case scenario," management at one site appeared to have little real investment in the program, left the instructor "in the dark" to try to figure out what to focus instruction on, frequently changed the list of participants in the course, and often held learners back from going to classes.

Sites used a mix of release time and "50-50" company-employee time.

Sites varied considerably in whether and how they supported learner participation in the program and use of the skills back on the job. Some sites provided comfortable learning facilities, sent managers in to help with classes, provided snacks, and held end-of-course recognition ceremonies. Other sites held classes in crowded, noisy, or smoky meeting spaces; didn't allow workers off work to participate regularly; or otherwise showed little interest in the workers or the classes.

2. What factors facilitated or blocked attainment of positive outcomes?

Based on feedback from those interviewed, observations of the sites, and the evaluator's prior understanding of "best practices" in workplace basic education, the evaluator concludes that the following factors have supported the attainment of positive outcomes in this project:

a. Well-prepared and -supported staff

WSB staff generally had the expertise they needed to carry out their roles as administrators, curriculum developers, and instructors in this project. For example:

- Administrators had prior experience and training in various roles in the business world (including marketing) as well as in areas of adult education and educational administration.
- The pool of adult educators on staff generally had had prior experience providing the kinds of instruction called for in this project. Most appeared to be creative and flexible and motivated to develop instruction which was relevant to the learners they were serving. Several of them had also worked in the business world, making them familiar with the corporate culture in which they had to work in this project. Most instructors were also willing and able to do customized work at odd hours.
- Some of the human resource managers in participating companies were familiar with the employee basic skills issue and were able to link the adult education services provided by this project to a broader vision and system for human resource development within the company.

In addition to the prior experience which the WSB administrators and instructors brought with them, they had access to a number of other vital supports:

- Training and technical assistance, both at the beginning of the project and on an ongoing basis. This training helped to prepare instructors to develop curricula customized to the needs of the organizations and learners they were to work with.
- A library of resource materials which they could adapt to their particular situations.
- Regular staff meetings in which administrators and instructors could provide updates, share questions and best practices, and provide peer support.
- Adequate pay to cover instructor curriculum development time, instructional hours and training sessions.

• Access to a copy machine so instructors could make copies as needed.

b. Clear goals and a process for setting them

Because there were so many people (WSB administrators and instructors, company managers, and learners) involved in this project, it was not always easy to have a unified "vision" of what the project was supposed to achieve. Nonetheless, there seemed to be a general agreement that the instruction at each site should help participating workers to develop knowledge and skills which which they could apply both in the workplace and outside it. In the process, this instruction would both help the learners to develop personally and professionally and help the company improve by having a more-skilled and -aware workforce to work with.

Most involved had realistic expectations, not making claims that a small ESOL program, for example, would by itself transform a company. Most involved seemed to see this project as an opportunity to try something new and see where it led.

Some in turn were more ready to make use of the classes than others. Some companies, for example, had a fairly clear idea of how their ESOL program "fit" with other organizational improvement activities. And some learners were excited to get involved in adult learning and seemed ready to use it as a stepping stone to further education, training, and job opportunities. Other companies and learners were less focused, for any number of reasons, most of which WSB had little influence over.

It thus seems important for those involved in a workplace learning effort to have the following in place if they are to make the best use of this kind of opportunity:

• A "vision" (a set of principles and a strategy for implementing them) to guide the project.
• Goals which are realistic, feasible, priority, and mutually-supporting. Goals might be broken down around:
  -- more-immediate objectives and longer-range goals;
  -- changes in both individual workers, work teams, and the larger organization.
  -- both "social" and "technical" aspects of the organization, recognizing that both are important..
  -- both SCANS-type "basic" skills and more "technical" knowledge (e.g., introduction to computers, statistical process control, insurance procedures).
  -- a mix of (a) skills needed for particular jobs and tasks, (b) skills needed to use more-general workplace functions (e.g., working in teams, asking questions, using particular benefits), and (c) skills needed to perform tasks outside the workplace

which are of high interest to learners.

- A flexible approach to ensure that goals and activities can be revised as experience dictates (allowing instructors and learners to "go with the teachable moment")..
- A variety of assessment tools, rather than an over-reliance on one type of measure. (Often it's more important to get people like managers to observe classes and talk with learners and instructors so they can understand what's going on in the program than to force everyone to do a "test" which can generate irrelevant information and intimidate learners.)
- Assessment which acknowledges small, incremental positive changes in learners.
- Assessment which looks at both individual workers' learning needs and those of the larger organization.

b. Active involvement of learners and companies

When company representatives and learners were actively engaged in setting goals and supporting learning activities, instruction was generally relevant, useful, and used by learners.

This involvement varied from site to site, but in the sites where there was active management and worker involvement, it was generally due to:

- *Adequate time: Those involved had enough time to meet with each other, get to know each other, establish trust, negotiate expectations, try ideas, keep abreast of what is being achieved, and change activities as needed. Some sites had that time; others did not. In those sites where not enough time was set aside, it was likely due to conditions (work demands, etc.) outside of the control of those involved or to a lack of priority being given to something like improving the basic skills of front-line workers.*

- *Trust: Those involved trusted that the others had the expertise and commitment to make whatever they engaged in together a success.*

- *Common, clear expectations: Those involved set goals they all could agree on, balancing the interests of various groups and individuals. These goals in turn served to keep efforts on target.*

- *Expertise: Those involved needed to have a certain level of understanding of what they were engaged in and what their roles should be.*

• *Visible signs of support from the company: Snacks, award ceremonies, release time, comfortable meeting space, release time policies, tuition reimbursements for learners interested in taking additional classes in local education agencies, visits by managers to classes, a locked file cabinet where teachers could store materials: these are all ways through which companies showed support for their education programs.*

Companies also need to consider what kinds of incentives (e.g., lateral promotions) they can provide to encourage learners to take advantage of learning opportunities. Creating a climate which values learning at all levels is a step in that direction.

In one site, the CEO was an immigrant who had had to learn English on his own and work his way up to be a successful businessman. He learned the value of learning English and supports his workers who try to do the same.

• *A workplace context which supports education: The more successful education programs tended to operate in workplaces where conditions allowed and encouraged stakeholders to set aside the time to make the program work. For example, if a company were going through a major reorganization or downsizing, or if its supervisors really didn't support worker empowerment through education, it would not likely be a place conducive to an employee basic education initiative.*

• *Workers motivated to succeed. Workers who got actively involved in making their programs a success were willing to take a risk, try something new, and practice using what they were learning back on the job and in their lives outside the job. (Some ESOL instructors say that their most successful learners are those who have children to practice their English with at home.) In some cases, these workers had had some prior positive experience with formal or informal learning and recognized that this program offered them a rare opportunity to improve oneself in an educational endeavor.*

• *Mechanisms for facilitating communication. Some sites put together planning teams and/or marketing activities to actively reach out to, negotiate with, and involve various stakeholder groups. In particular, it was important to involve supervisors to ensure that they supported the program and the workers involved in it (by, for example, making sure that workers are available when class time comes around). Supervisors might also need to take classes in intercultural communications, teamwork, etc.*

It should be noted that, although WSB stated its desire to involve learners in the planning of activities via Workers Learning

Councils at each site, it proved to be difficult to involve learners in this way. In most sites, planning was done by a WSB representative and the company human resource staffer who would, in turn, talk with supervisors and employees about the company skill needs. This was seen as an efficient way to get input from a variety of stakeholder groups, given the time constraints most workplaces operate under and the particular decision-making mechanisms most companies already use.

d. Curricula relevant to stakeholder needs

The most useful instruction generally focused on some combination of job-related skills identified by learners and managers as of high priority and on non-strictly-job-related skills of high interest to learners. Job-related instruction was most motivating to learners in sites where the company had made a clear, historical commitment to employee development and linking it to other workplace improvements.

The feedback suggests that, although sites were originally set up to provide instruction which was as workplace-related as possible, instructors often found that, to respond to learners' actual interests and opportunities for application, the instruction also had to incorporate at least some non-job-specific applications. These non-job-specific skills might include broader workplace knowledge (e.g., payroll procedures) or applications from learners' lives outside work.

Feedback also suggests that the most-commonly-seen outcomes were positive improvements in workers' attitude toward learning and their workplace. This suggests that those goals are relatively easier to achieve and more realistic than expecting a short educational program to re-energize a company in a significant way by itself.

Almost universally, however, instructors emphasized real-world, contextualized uses of basic skills which were relevant to workers rather than decontextualized learning of skills in isolation from real-life situations.

Where relevant contextualized instruction was carried out, learner motivation was generally high and valuable learning resulted. This often led to unforeseen positive outcomes like helping learners plan for future education and technical training.

It should be noted that, although stakeholders were virtually universal in saying that instructional activities had positive impacts, they were often only vague in saying what those impacts were. It is also not realistic to expect major, visible improvements in learner skills or workplace operations as a result of a short (e.g., 16-hour) course. We should thus keep that in mind when we hear praise for a class which lasted only a few weeks and from which a significant percentage of participants had to drop out of for various reasons.

e. Learning facilities which are supportive of learning.

In general, the learning facilities in this project were comfortable, quiet, clean, and well-equipped. This allowed the workers to succeed and showed them that their company places a high value on workplace education. In some cases, companies provided refreshments or an end-of-course reception or lunch to acknowledge the workers' achievements.

f. Links to learning opportunities outside the individual workplaces.

This program nudged the more-thoughtful human resource managers involved to consider how they might encourage learners to go beyond taking an isolated class or two on company premises. These managers were able to see more clearly how workers should think of themselves as lifelong learners who participate in ongoing self-improvement courses inside the workplace, out in the community (e.g., at the local adult education center), and in their homes (e.g., through computer-assisted instruction on home computers, educational videos, etc.) In some cases, this fit in with the companies' existing policies for tuition reimbursement and employee development.

In a number of sites, WSB staff made efforts to figure out how to provide adult education services geared to particular learning needs of individual workers and their employers which emerged during the courses. One idea was for WSB to provide free tuition to any workers participating in this federal project, to allow those workers to take a single course at WSB in addition to their workplace class. This would allow workers to get exposed to the notion of lifelong learning and to the opportunities which WSB makes available to working people on Long Island.

SECTION III

Next steps to build on lessons learned

In Section II, we conclude that Western Suffolk BOCES has successfully carried out the demonstration project it described in its original funding proposal and, in the process, has both provided useful educational services to participating workers and employers and developed "best practices" which others in the field can now learn from.

The evaluator suggests the following as actions which might be taken to (a) further strengthen WSB's workplace education efforts and (b) disseminate useful products to the workplace education field.

To further strengthen WSB's workplace education efforts

Learn from experience. In planning future workplace education efforts, WSB should learn from the considerable valuable experience it gained in this project. Section II outlines some of the elements a good workplace education system should have in place. There are also a variety of workplace education guidebooks and reports, conferences, and Internet sites which WSB staff might refer to when developing strategies for "post NWLP."

Establish satellite centers. WSB might also consider how to create satellite learning centers in the many industrial parks scattered around WSB's area. Many of the companies in those parks are likely to have at least a few workers who might benefit from, say, basic ESOL or math courses. These companies might be interested in sending those workers to a nearby center (perhaps located in one of the participating companies) to participate in classes composed of workers from several different companies. Curricula would be tailored around a mix of common needs which those workers have and particular needs specific to each learner.

Get companies involved as advocates. WSB should also ask those companies which benefitted from this federal grant to write letters of support for WSB which WSB can use in (a) marketing to local companies, (b) proposals and advocacy messages to government funders and others from whom WSB might want support. As one employer said: "It makes sense to educate your employees and keep them employed. This program is the best

deal in town. Policy makers need to really look at what the economy needs."

Emphasize strong partnerships with partners who are ready to do their share. WSB should also be sure that its links with decision-makers in companies are strong ones. This requires solid WSB staff (instructors and others) who know how to communicate to business partners and take the time to do so, along with company human resource personnel who are actively involved in finding ways to strengthen their workforce. These relationships are key to making any program work. WSB might have to avoid sites where such relationships can't be developed and sustained.

Link up with other workplace education centers in New York State. WSB might also develop more-active collaborative relationships with other workplace education programs around New York State (many of which were also federally funded). This would allow for cross-fertilization and greater visibility for the workplace education issue.

Develop a menu of services. Given the diversity of learning needs and abilities of companies and learners to commit time to workplace education efforts, WSB should develop a menu of services which range form short-term workshops to longer-term, sustained learning initiatives. The more-ideal scenario (from both a pedagogical and marketing perspective) might be to try to encourage longer-term relationships in which WSB provides a number of mutually-supporting learning activities. However, because many companies might not want to commit time or money to very many basic skills-related services, WSB might offer a variety of shorter courses on company premises or out in the community which respond to specific learning needs.

As a way of introducing companies and learners to the potential benefits of adult education, WSB might develop a series of introductory courses in which learners re-think what adult education can do for them and what they need to do to improve their current and future work situations. For example:

> • *An "introduction to workplace learning" course: Learners (a) analyze what they already know and what they'd like to learn in the future, (b) analyze in particular what they need to learn to be better at current or future jobs, and (c) map out a plan for improving their skills and knowledge over time.*
> • *An "introduction to problem-solving" course: Learners analyze their current workplace and jobs.*

Such courses would enable WSB staff to get to know local workplaces and workers, establish positive, trusting relationships, and establish a basis for further work with those workers and companies. WSB staff could informally assess learner needs and abilities through activities in which a number of skills are dealt with. This avoids the too-frequent tendency to

jump into a company setting with a very-narrow one-time course, thereby never allowing instructors to develop a foundation for a more substantive relationship with learners or the company.

To disseminate useful products to the workplace education field

To comply with the "dissemination" mandate of the NWLP, WSB might develop a manual profiling "best practices" culled from its sites and disseminate it to the workplace literacy field. "Practices" would include marketing strategies, various approaches to assessment, and various curriculum models developed for particular industries and workforces. This manual (or parts of it) might be disseminated by mail, in conference presentations, over the Internet, or in journal articles.

This publication (or some modified version of it) might also be useful as a marketing tool for WSB. That is, by showing it to prospective business partners, WSB would (a) demonstrate the expertise it has developed and (b) educate business partners about what needs to be in place for a successful workplace education effort.

APPENDIX A

Summary of sites participating over the three years

(Code: "L's" = number of learners served.)

Company	Yr.	Industry	L's	Hrs.	Content	Assessment used	Outcomes
Antares	3	Direct mail	16	34	ESOL	CASAS	Goals met.
BKG Knitwear	1	Garment	6	14	ESOL	NYS Place	Program successful, but business sold.
Calverton National Cemetary	3	Cemetary	10	28	Workplace comm's	Portfolio	Goals met.
Coherent Communi-cations	2	Electronics mfg.	15	4	SPC	Teacher made	Goals met.
Coherent Communi-cations	2	Electronics mfg.	19	4	SPC	Teacher made	Goals met.
Coherent Communi-cations	2	Electronics mfg.	32	4	SPC	Teacher made	Goals met.
Coherent Communi-cations	2	Electronics mfg.	15	4	SPC	Teacher made	Goals met.
Coherent Communi-cations	2	Electronics mfg.	16	4	SPC	Teacher made	Goals met.
Coherent Communi-cations	2	Electronics mfg.	18	4	SPC	Teacher made	Goals met.
Computer Associates	2+3	Software mfg.	2	38	Advanced ESOL	Teacher made	Significant improvement.
Computer Associates	2+3	Software mfg.	6	38	Advanced ESOL	Teacher made	Significant improvement.

Company	Yr.	Industry	L's	Hrs.	Content	Assessment used	Outcomes
Computer Associates	2+3	Software mfg.	9	38	Advanced ESOL	Teacher made	Significant improvement.
Computer Associates	2+3	Software mfg.	7	32	Advanced ESOL	Teacher made	Significant improvement.
Computer Associates	2+3	Software mfg.	19	116	Advanced ESOL	Teacher made	Significant improvement.
Decor Moulding		Mfg.			ESOL	BEST	Program successful for completers.
Dimac Direct	1	Bulk mail	5	16	ABE, GED		Program successful, but overtime interfered.
Dimac Direct	2 1+2+3	Bulk mail	5	24	Comm's. & problem-solving	Portfolio	Substantial gains.
Dimac Direct	1+2+3	Bulk mail	6	30	Comm's. & problem-solving	Portfolio	Substantial gains.
Dimac Direct	1+2+3	Bulk mail	6	34	Comm's. & problem-solving	Portfolio	Substantial gains.
Dimac Direct	1+2+3	Bulk mail	4	14	Comm's. & problem-solving	Portfolio	Substantial gains.
Dimac Direct	1+2	Bulk mail	4	14	Workplace lit & ESOL	BEST	Goals met
Dimac Direct	1+2	Bulk mail	4	75	Workplace lit & ESOL	BEST	Goals met
Dimac Direct	1+2	Bulk mail	4	75	Workplace lit & ESOL	BEST	Goals met
Dimac Direct	2	Bulk mail	10	33	Intro to blueprints	Teacher-made	Ongoing progress
Dimac Direct	2+3	Bulk mail	10	16	Oral comm's.	Portfolio	Significant improvement
Dimac Direct	2	Bulk mail	4	21	GED		Overtime caused scheduling conflict.
Dimac Direct	2+3	Bulk mail	8	16	Basic math	Portfolio	Goals met.
Dimac Direct	2+3	Bulk mail	14	99	Basic electricity	Teacher made	Ongoing improvement.

Company	Yr.	Industry	L's	Hrs.	Content	Assessment used	Outcomes
Dimac Direct	2+3	Bulk mail	9	8	ESOL orientation	Portfolio	Goals met.
Dimac Direct	2+3	Bulk mail	18	8	ESOL orientation	Portfolio	Goals met.
Dimac Direct	2+3	Bulk mail	6	8	ESOL orientation	Portfolio	Goals met.
Dimac Direct	2+3	Bulk mail	8	8	ESOL orientation	Portfolio	Goals met.
Dimac Direct	2+3	Bulk mail	2	2	ESOL orientation	Portfolio	Goals met.
Dimac Direct	2+3	Bulk mail	3	8	ESOL orientation	Portfolio	Goals met.
E-Beam	2	Electronics mfg.	9	32	ESOL	Oral-Place Written-BEST	Substantial gains
Gasser & Sons	2+3	Machine parts mfg.	8	32	ESOL	CASAS	Significant gains
Gasser & Sons	2+3	Machine parts mfg.	9	32	ESOL	CASAS	Significant gains
Gasser & Sons	2+3	Machine parts mfg.	9	24	ESOL	Portfolio	Significant gains
Gasser & Sons	2+3	Machine parts mfg.	9	32	Workplace math	Teacher made	Goals met.
Gasser & Sons	2+3	Machine parts mfg.	7	7.5	Blueprint reading	Teacher made	Ongoing progress
Gent Uniform	2+3	Garment mfg.	13	30	ESOL	CASAS	Goals met.
Howard Johnson's	1	Hospitality	4	32	ESOL	Oral - NYS Place Written - BEST	Substantial gains.
Huntington Hospital	2+3	Healthcare	14	24	ESOL	CASAS	Ongoing progress
Huntington Hospital	2+3	Healthcare	8	24	ESOL	CASAS	Ongoing progress
ILC Data Device Corp.	1	Electronic parts mfg.	14	32	ESOL	BEST	Goals met. Limited company motivation.
ILC Data Device Corp.	1	Electronic parts mfg.	4	28	ESOL	NYS Place	Goals met. Limited company motivation.

Company	Yr.	Industry	L's	Hrs.	Content	Assessment used	Outcomes
Jaco Electronics	2+3	Electronic parts distributor	16	26	Team building	Portfolio	Goals met.
Jaco Electronics	2 + 3	Electronic parts distributor	8	16	ESOL		Significant improvement.
Link Door	2+3	Door mfg.	19	36	ESOL	CASAS	Goals met.
Link Door	2+3	Door mfg.	9	30	ESOL	CASAS	Goals met.
Lumex	2	Med. equip. mfg.	15	24	ESOL	NYS Place	Goals met. Discontinued when company was sold.
Lumex	2	Med. equip. mfg.	12	32	ESOL	NYS Place	Goals met. Discontinued when company was sold.
Lumex	2	Med. equip. mfg.	9	32	ESOL	NYS Place	Goals met. Discontinued when company was sold.
Lumex	2	Med. equip. mfg.	14	32	ESOL	NYS Place	Goals met. Discontinued when company was sold.
Marriott Uniondale	2+3	Hospitality	13	19	ESOL	CASAS	Goals met.
Marriott Uniondale	2+3	Hospitality	10	18	ESOL	CASAS	Goals met.
Marriott Windwatch	2+3	Hospitality	15	37	ESOL	BEST	Goals met. Scheduling conflicts.
Marriott Windwatch	2+3	Hospitality	8	20	ESOL	BEST	Goals met. Scheduling conflicts.
Marriott Windwatch	2+3	Hospitality	19	39	ESOL	BEST	Goals met. Scheduling conflicts.
MGW	3	Transmission mfg.	10	24	ESOL	CASAS	Ongoing.
Monitor Aerospace	1+2 +3	Aerospace mfg.	6	2	Use of tools	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	5	2	Use of tools	Teacher-made	Goals met.

Company	Yr.	Industry	L's	Hrs.	Content	Assessment used	Outcomes
Monitor Aerospace	1+2 +3	Aerospace mfg.	6	2	Shop hardware	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	5	2	Shop hardware	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	4	2	Cutting tools	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	5	2	Cutting tools	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	7	3	Measuring tools	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	6	3	Measuring tools	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	8	3	Shop math	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	4	3	Shop math	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	8	3	NC terminology	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	5	3	NC terminology	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	10	9	SPC	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	6	9	SPC	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	7	9	SPC	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	10	9	SPC	Teacher-made	Goals met.

Company	Yr.	Industry	L's.	Hrs.	Content	Assessment used	Outcomes
Monitor Aerospace	1+2 +3	Aerospace mfg.	7	9	SPC	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	8	9	SPC	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	4	?	Lockout tagout	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	11	32	ESOL	Place	Significant improvement
Monitor Aerospace	1+2 +3	Aerospace mfg.	17	24	ESOL	BEST	Significant improvement
Monitor Aerospace	1+2 +3	Aerospace mfg.	13	30	ESOL	BEST	Significant improvement
Monitor Aerospace	1+2 +3	Aerospace mfg.	16	16	ESOL	BEST	Significant improvement
Monitor Aerospace	1+2 +3	Aerospace mfg.	12	9	SPC	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	7	9	SPC	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	9	9	SPC	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	8	9	SPC	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	6	9	SPC	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	8	9	SPC	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	8	9	SPC	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	5	9	SPC	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	7	9	SPC	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	6	9	SPC	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	6	9	SPC	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	24	2	Deburring	Teacher-made	Goals met.

Company	Yr.	Industry	L's	Hrs.	Content	Assessment used	Outcomes
Monitor Aerospace	1+2 +3	Aerospace mfg.	12	22	ESOL	Place	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	10	30	ESOL	Place	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	16	2	Safety	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	16	2	Safety	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	21	2	Safety	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	16	2	Safety	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	10	2	Safety	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	17	2	Safety	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	15	2	Safety	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	18	2	Safety	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	18	2	Safety	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	14	2	Safety	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	12	2	Safety	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	16	2	Safety	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	16	2	Safety	Teacher-made	Goals met.
Monitor Aerospace	1+2 +3	Aerospace mfg.	13	2	Safety	Teacher-made	Goals met.
Package Fulfillment	2+3	?	6	32	ESOL	BEST	Adequate gains. Limited company motivation.
Photocircuits	2	Electronics mfg.	12	48	ESOL		Substantial gains.
Photocircuits	2+3	Electronics mfg.	22	36	Advanced ESOL	CASAS	Ongoing progress

Company	Yr.	Industry	L's.	Hrs.	Content	Assessment used	Outcomes
Photocircuits	2+3	Electronics mfg.	19	24	Beginning ESOL	CASAS	Ongoing progress
Spellman High Voltage	1	Electronics mfg.	12	24	ESOL	NYS Place, BEST	Adequate gains. Limited company motivation.
Spellman High Voltage	1	Electronics mfg.	14	28	ESOL	NYS Place, BEST	Adequate gains. Limited company motivation.
Tapeswitch	2	Electronic sensor mfg.	13	4	Intro. to blueprints	Teacher made	Goals met.
Thomson Industries	2	Precision gear mfg.	13	9	SPC	Teacher made	Goals met.
Thomson Industries	2	Precision gear mfg.	11	12	SPC	Teacher made	Goals met.
Thomson Industries	2	Precision gear mfg.	7	40	ESOL	NYS Place	Goals met.
Three Village Inn	1	Hospitality	4	14	ESOL	BEST	Goals met. Scheduling difficulty.
Three Village Inn	1	Hospitality	7	18	ESOL	BEST	Goals met. Scheduling difficulty.
Three Village Inn	1	Hospitality	5	30	ESOL	BEST	Goals met. Scheduling difficulty.
Three Village Inn	1	Hospitality	8	32	ESOL	BEST	Goals met. Scheduling difficulty.
Todd Products	3	Electronics mfg.	18	56	Beginning ESOL	CASAS	Significant improvement.
Todd Products	3	Electronics mfg.	8	56	Intermediate ESOL	CASAS	Significant improvement.
Todd Products	3	Electronics mfg.	19	56	Intermediate ESOL	CASAS	Significant improvement.
Todd Products	3	Electronics mfg.	14	56	Advanced ESOL	CASAS	Significant improvement.

APPENDIX B

Schedule of 1997 Information-Gathering Activities

Jan. 28 Review of Year 1 project evaluation report prepared by Metis Associates

March 3 Review of WSB responses to evaluator's February 14th questionnaire

March 10 Phone interview with Debra Tenenbaum

March 20 Review of project proposal

April 16 Interview with HRD manager Rich Dallari and tour at Monitor Aerospace

April 16 Meeting with WSB staff Debra Tenenbaum and Mary Ann Lynch

April 16 Interview with Gasser & Sons instructor Arlene Kreisberg

April 16 Interview with instructor Judy Zishuk and learners at Computer Associates

April 17 Interview with instructor Judy Zishuk and learners at JACO Electronics

April 17 Review of project documents at WSB office

April 17 Meeting with WSB staff Debra Tenenbaum and Mary Ann Lynch

April 17 Interview with Bob Engeman, HRD manager at Dimac Direct

April 17 Focus group with WSB instructors

May 5 Interview with Roseanne Cataldo, instructor at several sites

May 5 Interview with Mary Jane Kirkland, instructor at Huntington Hospital

May 5 Meeting with WSB staff Debra Tenenbaum and Mary Ann Lynch

May 5 Meeting with learners and administrator Carol Lenahan at Huntington Hospital

May 5 Meeting with instructor James Feldman and learners at Dimac Direct

May 6 Meeting with Andrea Weisman, marketing coordinator at WSB, and review of marketing materials

May 24 Phone interview with Debra Tenenbaum

June 10 Phone interview with Debra Tenenbaum regarding May 23rd preliminary evaluation report

July 23 Meeting with Linda Talmage, HRD manager at ILC Data Device Corp.

July 23 Meeting with Carol Stewart, HRD manager at Spellman High Voltage

July 23 Meeting with Mike Lamond, HRD manager at Todd Products

July 23 Meeting with WSB staff member Mary Ann Lynch at W. Suffolk BOCES

July 24 Meeting with manager Frank Urbinetti and learner at Gent Uniform

July 24 Meeting with John Lampa, manager at Marriot Uniondale

July 24 Meeting with Shirley Durkin, HRD manager at Photocircuits

APPENDIX C

Twelve Site Profiles

This Appendix contains profiles of twelve of the 28 company sites which participated in the three-year project. These twelve companies represent a mix of types of industries, sizes of companies, workforces,and learning needs. These profiles are not meant to be exhaustive but rather to give a "taste" of what happened in the sites over the three years.

Note that we have generally tried to simply record the responses which company representatives gave to our questions. This was done to help the reader get a sense of what employers' perceptions were of various aspects of their programs, even if those perceptions were not fully reflective of what actually happened in the program.

Also, where employers or the evaluator cited "lessons learned" about what should be done in a workplace education program, this is not to suggest that such things were not being done at that particular site. Rather, the respondents were simply trying to identify what needs to be in place for a successful program, based on the respondents' experience.

Site Profile
Computer Associates

Name and address of company
Computer Associates
One Computer Associates Plaza
Islandia, NY 11788-7000

Contact person
Lisa J. Breiman,
Asst. Vice Pres., Personnel
516/342-2080

Type of industry: Manufacturer of computer software

When services were provided: 1996, 1997. Classes have been held at Computer Associates for about 1.5 years, meeting two hours per session, twice a week.

Learner profile:
Most recent class had:
Number: 9
Ethnicity/language: Primarily European (French, Russian, Yugoslavian), some Asian and Latin American
Type of jobs held: Sales representative, software designers

Goals and topics covered:
- This program was an ESOL program for foreign-born (most European, a few Asian)

employees holding higher-level, white-collar jobs (most as computer programmers, one as a salesperson). Most learners were highly-educated in their home countries and had decent command of English. The program focused on:

-- *Pronunciation (accent reduction)*

-- *Vocabulary, especially American idioms and company-related terminology (e.g., about insurance procedures and vacation policies) taken from company handbooks*

-- *Role plays and "creative discussion" of job- and non-job-related situations. (Examples include conducting interviews, writing business memos.)*

Outcomes reported:

The learners interviewed said that they found the program very useful, as they were able to use what was taught quite readily.

Key lessons learned:

- All learners were self-motivated, making teaching and learning relatively easy.
- Participants met on their own time after normal work hours. This was not so difficult, as their life circumstances allowed them to do so.
- Learners were not given homework, although they operated in an English-speaking workplace where they have constant opportunities to practice their English. Those learners with children also practice with their children at home.

Evaluator's comments:

- The learner population was an unusual one for a NWLP site. Learners were relatively highly-educated and -skilled white-collar employees. They appeared to have all the essential ingredients in terms of "readiness to learn": extensive educational background and life experience, a good command of English to begin with, high self-esteem, many opportunities to learn English, and social and economic motivations to do so. Predictably, they were able to learn a lot in this program and then use it. While this confirms what most workplace educators would already suspect, it is interesting to see that our assumptions are in fact accurate. However, because these people already have many opportunities to learn (and funds to pay for, say, ESOL classes), public funds should probably not be targeted to such populations in the future.

Site Profile
Dimac Direct

Name and address of company

Dimac Direct
40 Daniel St.
Farmingdale, NY

Contact persons:

Michael Glanzman, Manager - Inserting Dept.
Kathy Hughes, Human Resources Director
Bob Engeman, Production Supervisor
516/844-4002

Type of industry: Bulk mail distributor

When services were provided: 1995, 1996, 1997.

Key features of company (factors shaping company policies and interest in worker education)

- The company has a history of investing in employee education and has, among other things, a generous tuition reimbursement program.

Goals and topics covered:

- The company has had a history of providing work-related education and training to staff around such topics as ESOL, customer relations, and even sign language (so workers would to be able to work with hearing-impaired workers newly-hired from a school from the deaf). More recently, the company HRD staff saw the need for training related to safety and helping workers qualify for supervisory-level positions. (See "supervisor skills" class below.)
- Recent classes with BOCES staff have included:

  An orientation class to help new employees get to know company policies (e.g., for training, vacation), benefits, procedures (e.g., calling in sick, filing accident reports, asking for permission to leave one's machine), and incentive systems.
  A hi-lo safety class
  A class on proper lifting
  A "supervisor skills" class (with 8-10 participants) which covered math (e.g., budgeting), oral communications, and written communications (e.g., memos, performance reviews, justifications for new capital expenditures). (This class resulted in 2-3 workers getting promotions.)
  A "basic mechanics" class for operators of mail-sorting machines.

Outcomes reported:

- Two or three workers were promoted to supervisory positions at least in part due to their participation in the "supervisor skills" class
- Management concluded that the various classes provided by WSB were valuable because classes were built around very particular job-related writing and math demands. They felt that the math classes were the most useful.
- Workers appreciated the opportunity and saw a value in it. Many still use the handouts and reference materials they got in the classes.
- The "basic mechanics" class focused on helping sorting machine operators to understand the mechanics and electronics of the machines they work on daily. In particular, workers learn how to read blueprints and schematics, to be able to trace the source of breakdowns. The workers involved appear to be very motivated to learn the course material, as it is very directly related to making their jobs easier and more meaningful.
- The HRD manager said the company is very happy with the instructors, as they are well-prepared and -motivated, available to talk with management about the classes, and have provided relevant instruction.
- The company is about to move to a new location and will hire new workers. This might be an opportunity to provide additional worker education services.

Key lessons learned:

- The company felt that, although the services provided by BOCES were of good quality, it might have helped if teacher schedules could sometimes have been more flexible, to allow them to conduct activities at times more convenient to the company. (BOCES notes that "Teacher schedules were always flexible. In this particular instance, the teacher they wanted to have was available at limited times. Another instructor could have given the instruction at other times.")
- The company also felt that, to be effective, instructors have to be very well prepared and make best use of available time. (This was in fact BOCES policy.)
- Supervisors often have limited educational backgrounds themselves and are thus strong candidates for some kind of basic education program. At Dimac, supervisors do get some extra training in management skills.
- The company HRD office keeps a training log for each employee participating in education programs. This allows the HRD director to monitor results and convey them to higher-level management. This also helps him monitor the quality of classes, as he doesn't want to waste workers' time by sending them to inappropriate classes.
- The program did conduct various kinds of assessment activities for the various classes conducted. Each assessment had to be customized to the particular topics covered. In most cases, the HRD manager didn't request scores for individual workers.
- Some workers work two jobs and can't stay after work to attend a class. The company feels it can't push low-paid workers too hard.
- It is important to use innovative, interesting teaching material (e.g., kits from Radio Shack, displays from vendors) to help learners understand technical concepts. Instructors need to make instruction both fun and practical, in a language learners can relate to.
- Many of the immigrant workers have fairly high levels of education in their home countries, but have been doing relatively low-paid factory work since their arrival in the U.S. due to their lack of English skills and other factors. They have knowledge which is potentially valuable to employers but is largely overlooked.

Site Profile
Gasser & Sons

Name and address of company
Gasser & Sons
440 Moreland Road
Commack, NY 11725

Contact person
Marie Meza
516/543-6600

Type of industry: Manufacturer of machine parts

When services were provided: 1996, 1997

Goals and topics covered:

- BOCES has conducted several classes at Gasser & Sons, including two ESOL classes in late 1996 and a 10-week math class in spring 1997. (The math class was instituted to help workers qualify for participation in a blueprint-reading class.)
- For the math curriculum, BOCES provided some basic math materials. The instructor used them selectively and added her own materials, as well.

Summary of activities:

- To prepare the math curriculum, the instructor sat with the HRD director to discuss possible skills to focus on. They identified fractions, tolerances, and decimals as areas of concern. The instructor then gave prospective learners a pre-test and found their skills to be weak, so she developed a basic math curriculum. Wherever possible, the instructor tried to relate the instruction to the tasks workers face on the job. For example, she did sessions on how to calculate overtime and various other tasks. Workers appeared particularly interested in problems related to management of money.
- Similarly, in the ESOL class, instruction focused on such money-management-related topics as "how to fill out an insurance claim form."
- The instructor reported the results of the classes to the HRD director.

Outcomes reported:

- Of the six graduates of the math course, most of them were to go on and take a blueprint class. (It is not clear, however, that they couldn't have taken the blueprint class without first having taken the math course.)

Key lessons learned:

- The math class started with twelve learners, but six of them soon dropped out. She suspects that, due to "machismo," men workers don't want to appear "weak" by participating in a basic skills class. Some also left because they held second jobs which prevented them from staying after work.
- The twelve participants in the math class were a mix of immigrants and native-born Americans. Of the six who stayed, five were immigrants (four Latinos and one Haitian).
- Most of the math students seem to have never mastered the math functions covered in the classes, either in the U.S. or (if immigrants) in their home countries. Some of the immigrants had also learned a different way to do math problems.
- Some obstacles which learners face:
  - -- Test anxiety
  - -- Fatigue (especially for those who hold two jobs)
  - -- Lack of willingness/ability to do homework.
  - -- (For ESOL learners) their tendency not to try using English back on the job.
  - -- Carelessness (i.e., some learners were simply not very focused when taking tests or doing other work.)
- The most successful ESOL learners are those who have children with whom they can practice their English.
- BOCES conducted regular staff meetings, but the instructor was not always able to attend due to schedule conflicts. BOCES staff also came and observed her in action, provided a teacher-training teleconference, and allowed her to visit and observe other teachers. Much of the instructor's expertise has, however, come simply from going out and "doing it." (She

has taught in four or five different companies now.)
- The instructor has found that it would be useful for her to be able to speak some Spanish, given the large Latino segment of the workforces she deals with.
- It is difficult for the instructor to invest herself in workplace education as a career due to (a) the lack of full-time work and benefits, (b) the odd hours, and (c) the general lack of pay for prep time. This is despite the fact that she enjoys working with adults.

Site Profile
Gent Uniform Rental

Name and address of company
Gent Uniform Rental
5860 Merrick Rd.
Massapequa, NY

Contact person
Frank Urbinetti
516/795-4237

Type of industry: Manufacturer and cleaner of industrial uniforms

Make-up of workforce: primarily Latino immigrant

When services were provided: 49 classes were held (twice weekly, for 1.5 hours per class) on Mondays and Wednesdays from 4:00 - 5:30 pm in May-June 1997.

Learner profile:
No. approximately 13
Ethnicity/language: Latin American
Type of jobs held : Seamsters, sewers, menders, order-pickers, order packers

Goals and topics covered:
- The company wanted to help its Spanish-speaking, limited-English-proficient workers to improve their English skills for personal and professional advancement.

Summary of activities:
- In winter of 1996-97, a company manager heard about the Western Suffolk BOCES workplace education program when he went to a local library to seek help for his immigrant workers.
- BOCES staff visited the site and analyzed workers' jobs. These included:
  - -- Seamsters
  - -- Sewers
  - -- Menders
  - -- Order-pickers
  - -- Order packers
- BOCES staff also conducted a test, to determine workers' skill levels. Workers were placed

in a single class, regardless of their skill levels.

- The class started with "general" English, then went into broader job-related language (e.g., filling out a job application, calling in sick) and "civics" issues, and then went into specific job-related language, measures, etc. Instructors used videos, word games (e.g., bingo), and the dictionary as teaching tools.
- Workers participated on a 50/50 release time basis.
- The BOCES instructors insisted that workers not use Spanish in class.
- Many workers were motivated to improve their job prospects, as better jobs require English proficiency. If they don't have a good command of English, they are "stuck" in lowest-level jobs.
- One learner said that "people are afraid to try for new careers." She also said that some are motivated to learn English because they want to become citizens.

Outcomes reported:

- Company management says it has seen a significant change in workers' attitude as a result of the program. The company would like to find some way to continue the program after the federal grant finishes.
- Some workers now feel encouraged to go on for further ESOL classes at Suffolk Community College.

Key lessons learned:

- One learner advised that, if the company sponsors classes again, learners should be divided into levels.
- The same learner recommended as possible future topics: citizenship rights, legal rights, medical English, talking with kids' teachers, consumerism (e.g., "read before you sign.")

Evaluator's comments:

- The plant manager seemed very supportive of the idea of worker education and has a personal loyalty to the workers. He is willing to write letters to funders to encourage them to continue such programs.

Site Profile
Huntington Hospital

Name and address of company
Huntington Hospital
270 Park Avenue
Huntington, NY 11743.

Contact person
Carol Lenahan
Housekeeping Supervisor
516/351-2481

Type of industry: Community hospital

When services were provided:
In 1997, there have been two 8-week sessions (starting in February and April), with two 1.5-hour sessions per week

Learner profile:

No.: approximately 12

Ethnicity/language: Primarily Latino immigrants, with some Haitians and one English-speaker from Trinidad. Many have been in the U.S. for 5-18 years and have not yet mastered English. Most are women and their ages range from 35 to 55.

Type of jobs held: Most are housekeepers (cleaning rooms)

Key features of company (factors shaping company policies and interest in worker education)

- Like many hospitals, Huntington Hospital has begun to restructure housekeepers' jobs by expanding their responsibilities to include some basic patient care. This is driving the hospital to deal with the fact that many of their current housekeepers are immigrants and lack basic English communication skills they need to interact with English-speaking patients, to keep relevant records (e.g., regarding patient liquid input), and to communicate with nursing staff regarding patients.
- The hospital doesn't want to lose good workers, so has been motivated to set up this ESOL program.
- The workers likewise have heard about these changes, fear losing their jobs, and are thus motivated to participate in the program.

Summary of activities:

- Instructor initially used the CASAS test, but found it too long and not a very accurate predictor of learner abilities and needs. After conducting two classes with the learners, the instructor soon coul identify learner abilities and the vocabulary they needed. She informally assesses learner progress via observation and conversations.
- Instructor used a series of charts which depicted various hospital situations (e.g., an examining room with people, equipment, crutches). She also got learners to "talk about things they were familiar with" and to engage in role plays depicting hospital situations. Some of these situations were suggested by the learners themselves.
- The instructor doesn't give homework. Learning thus has to be concentrated into the short number of instructional hours.
- Classes meet in a comfortable, well-lit conference room.

Outcomes reported:

- By participating in the ESOL classes, participants have become "very eager" to further their education, in contrast to their initial reluctance to participate.
- The nurses with whom many of the participants work and to whom they report have also become supportive of the idea of worker education.
- The hospital management has seen the value of such education programs and now is interested in continuing something like this ESOL class.
- Participants appear to be more willing now to speak up in staff meetings and to ask questions. However, some workers report that they are "treated like children" by supervisors. This fact along with their "shyness" makes some learners reluctant to speak up.
- Learners liked talking about job-related topics, but found talking about "everyday living"

topics (e.g., the supermarket, school, teachers) to be more interesting.
- Some learners feel they can now speak more freely with their school-age children who already have a better command of English.

Key lessons learned:
- Although the program was set up to prepare people for better jobs, it is not clear that there is a career path which most housekeeping workers can follow even if they complete this program.
- It is difficult for many workers to stay after normal working hours to attend an ESOL class because of second jobs or lack of childcare and/or transportation . Either the class schedule might be changed or workers' work schedules could be made more flexible.
- Hospital management needs to have something like a "report card" which summarizes what is being accomplished in the classes. The HRD manager would like information about learners' improvements, effort level, and whether they should participate in further education.
- This program was new to the hospital, and hospital administrators didn't give very much input into the program content. They might do otherwise if the program continues.
- At least one of the participants (a Caribbean who spoke English fluently but with a Caribbean accent) didn't belong in this ESOL class and appeared to be resentful that he was asked to participate. Also, the class was composed of a wide range of ESOL levels. Planners must be aware that such arrangements can lead to problems in the future.
- Hospital management would like guidance on what to do next vis-a-vis employee basic education. Housekeeping staff's jobs will be on the line, and no one is clear what will happen to them. New hires will be screened to ensure that they are fluent in oral and written English. Non-English-speakers will be that much more marginalized.
- Other hospital staff need to be involved in the education program in some way, so they know what is going on in the classes.
- The BOCES has done a good job of making the program work. In the future it might be useful to have a library of resource materials for workers to use.

Evaluator's comments:
- Maybe the hospital could sponsor a "problem-solving" or "clear communications" course for those workers with higher levels of English proficiency. This would reduce the stigma of "being in a class for people who can't speak English."

Site Profile
ILC Data Device Corporation

Name and address of company
ILC Data Device Corporation
105 Wilbur Place
Bohemia, NY 11716-2482

Contact person
Linda Talmage, Training Manager
516-567-5600, ext. 7559

Type of industry: Manufacturer of electronic equipment parts, especially for military equipment (aircraft, tanks, etc.)

When services were provided: 1995

Learner profile:

No: approximately 15
Ethnicity/language: Vietnamese and Latino

Summary of activities:

- The program consisted of 16 hours of ESOL instruction in 1995.
- The program was planned by the training manager, several department managers, and a representative of Western Suffolk BOCES. This program was an outgrowth of previous ESOL programs conducted by the company. Employees and their supervisors both agreed that such programs are useful.

Outcomes reported:

- Although it appears that Western Suffolk BOCES did conduct some pre-testing of learners, it is not clear whether any post-testing was done.
- The training manager reports:

  . . . As a result of the ESOL program, "participants were better able to understand work terminology and improved their daily living skills. For example, electronics terms and supermarket shopping were covered in class."

  . . . "Employees have continued to participate in ESL courses at Eastern Suffolk BOCES. We do not offer the courses on-site, but do cover the cost of tuition."

  . . . "The employees were able to use the English skills on the job immediately. They have also continued training in this area on their own -- attending night classes after work."

  . . . "We were very satisfied with the workplace education program conducted with Western Suffolk BOCES and would consider using the organization in the future for similar programs."

Site Profile
Jaco Electronics

Name and address of company

Jaco Electronics
145 Oser Avenue
Hauppage, NY 11788

Contact person

Diane Eckhoff-Stickle
Human Resources Manager
516/273-5500

Type of industry: Distribution center/warehouse for electronic parts

When services were provided: 1996, 1997

Goals and topics covered:

- The program consisted of several classes on the following topics:

  -- *A problem-solving class for warehouse workers in which technical (e.g., vacation policies) and social (e.g., employee-supervisor relations) problems were discussed.*
  -- *A class in which one of the technical problems -- the need for a date code system -- was explored in more depth. (The group developed its own date coding system.)*
  -- *A "long-range goals" class in which warehouse workers identified their personal strengths, limitations, and goals, and then developed career plans for themselves.*
  -- *A refresher course for clerical workers in the accounting department*

Outcomes reported:

- The warehouse workers participating in the classes appeared to be highly motivated and appreciative vis-a-vis the classes. They liked being given the opportunity to voice their problems -- at least within the confines of the class. They were concerned, however, that the discussions would not lead to change if supervisory and other management personnel weren't open to discussing the issues with the workers.
- The participants also appeared grateful to have the opportunity to discuss with their instructor what other career and educational opportunities they might pursue. The workers appeared never otherwise to be encouraged to think in terms of self-improvement or to be helped to think through realistic options and career paths. Many seemed to be "stuck" -- for linguistic, economic, or other reasons -- in the mode of thinking themselves as inevitably limited to a low-skill, low-wage job.
- The problem-solving class exposed workers to a different model of dealing with workplace problems. Prior to that, the dominant models that they were familiar with were (a) the "staff meeting lecture" in which supervisors simply made speeches to workers, who sit silently or (b) the "supervisor harangue" in which a worker was yelled at by a supervisor if he/she raised a concern or suggestion about a problem. These two approaches to problem-solving resulted in problems not getting resolved, resentment increasing, and worker morale going down.

Evaluator's comments:

- Given the learners' clear interest in further educational opportunities, might this site have a series of refresher workshops focusing on projects carried out by individuals or groups of workers?
- Given that some workers were concerned that supervisors weren't prepared to listen to workers' suggestions, might the company institute a management skills (problem-solving) class for supervisors, too?
- To help workers develop both problem-solving and writing skills, might future problem-solving classes have workers writing about workplace problems and sharing their writings within the group and perhaps with management? (This is being done in another federal program in upstate New York.)

Site Profile
Marriott Uniondale Hotel

Name and address of company
Marriott Uniondale Hotel
101 James Doolittle Blvd.
Uniondale, NY 11553

Contact person
John Lampa
Housekeeping Supervisor/Human Resources
516/794-3800

Type of industry: Hotel

Make-up of workforce: 10-15% limited-English-proficient

When services were provided: Two "semesters" were held so far, in fall 1996 and spring 1997. Each "semester" lasted 16-18 weeks.

Learner profile:
No. 10-13, in two classes
Ethnicity/language: Primarily Latino
Only 3% of learners are male.
Type of jobs held: Housekeeping staff

Goals and topics covered:
- The class was divided into two levels and focused on a mix of "general" English and hotel-related terminology.

Summary of activities:
- The hotel ran one class from 7:30 to 8:30 am. Learners would arrive 30 minutes before work began and then stay in the class for the first 30 minutes of their work time, thus having a 50/50 release-time arrangement.
- Instructor did a pre- and post-test. This site was relatively more "results-oriented" than was the previous class held at the other Marriott (Windwatch) site. Management reviewed the test results, but didn't talk with learners about them.
- The classes were held in two 16-18-week "semesters." The term "semester" was used to set a more formal, academic tone.
- Workers are encouraged to seek information about educational opportunities in the local communities.

Outcomes reported:
- The response of learners was "good," with about 18 of the 20 learners sticking with the classes.
- Management would like to continue the classes in fall 1997.
- The human resources director and hotel general manager are both aware of and pleased

with the classes.
- Some learners see these classes as a springboard to taking other classes, especially outside the hotel.

Key lessons learned:
- Management has liked the BOCES instructors, as they are organized, on time, and motivational/supportive for learners.
- Men workers seem reluctant to join the classes, possibly due to "pride." (At Marriott Windwatch, only 6% of learners were male; at Uniondale, only 3% were male.)
- In future classes, management would now increase the level of expectation for the classes by making them more demanding, especially in terms of "testing."
- The management tries to encourage natural "leaders" within the worker population to get involved in these ESOL classes and other opportunities it provides to workers.
- Management acknowledges that in the future the hotel could probably be more pro-active in terms of encouraging learners to use English back on the job. This hotel environment supports the use of English because it provides opportunities for job advancement to people who have better English skills. Some learners also see these classes as a springboard to taking other classes.

Site Profile
Marriott Windwatch Hotel

Name and address of company
Marriott Windwatch Hotel
1717 Vanderbilt Motor parkway
Hauppage, NY 11788

Contact persons
Jeff Scrocke, Director of Human Resources, 516/232-9800, ext. 380
John Lampa, 516/794-3800

Type of industry: Hotel

Make-up of workforce: 60% limited-English-proficient

When services were provided: 1996, 1997

Learner profile:
No. 8-19, in three classes
Ethnicity/language: 80% Spanish-speaking, 10% Haitian, 10% other (mostly Eastern European)
Type of jobs held : Housekeepers

Goals and topics covered:
- Hotel management wanted to give their limited-English-proficient housekeeping staff a

"taste" of ESOL instruction.
- The focus was to be "general" English along with some hotel-specific vocabulary and concepts.

Summary of activities:
- A BOCES representative visited the site to discuss program options and set up an initial round of classes for a group of housekeeping staff from a mix of language groups.
- Initially, two classes were set up, one from 7:30 to 8:30 am and the other from 8:00 to 9:00 am.
- Classes were on a 50/50 release-time basis.
- The classes dwindled from 10-15 attendees to 8.
- Another class given during the day had a consistent group of 20 participants.
- This class ran for 1.5 years.
- A pre-test was given, but no post-test.

Outcomes reported:
- A manager reports that about 85 percent of participants were more communicative, willing to try to speak up in English and talk with supervisors and guests, using common phrases.
- Many also took the next step of enrolling in outside ESOL classes. Company was willing to adjust workers' schedules so they could attend those classes.
- Employees saw the classes as a benefit. Employee morale was therefore positively impacted by the classes.
- There was no post-test given to compare against the earlier pre-test.

Site Profile
Monitor Aerospace

Name and address of company:
Monitor Aerospace
1000 New Horizons Blvd.
Amityville, NY 11701

Contact person(s):
Rich Dallari, Human Resources Manager
516/957-2300

Type of industry: Manufacturer of components for aircraft and aerospace vehicles (e.g., space shuttle)

Make-up of workforce: Currently approximately 250, down from 570 in 1992. The company workforce is 50% Latino immigrant, 10% Polish immigrant, 40% American-born

When services were provided: 1995, 1996, 1997

Learner profile:
Type of jobs held: Most participants do skilled manual work, building precision parts for

aircraft.

Key features of company (factors shaping company policies and interest in worker education)

- This company, like others in the military-related industries on Long Island, has undergone downsizing and re-direction in the 1990s, with a 50 percent reduction in its workforce and diversifying into non-military-related products and services.
- The company tries to promote from within and otherwise develop employee morale and loyalty via such things as an extensive in-house health care program, a nice cafeteria, inviting landscaping, even a barber shop.
- Some immigrant workers have fairly high levels of education in their home countries but have limited proficiency in English.
- Most workers are highly motivated and work long hours.
- The chairman of the company board is an immigrant from Italy who learned the value of education and learning English at a young age. Top management also tries to keep abreast of good practice -- technological, educational, or otherwise -- developed in other companies. The CEO has interacted with other companies which have successfully invested in worker education.

Goals and topics covered:

- With its large immigrant population, the company has been concerned about basic communication skills as well as more-technical skills. Immigrant workers need to talk with supervisors (to ask questions or discuss problems and hazards), use job-specific language (names of tools and parts), and do shop math and blueprint reading.
- In the ESOL curriculum, they covered:
  - *First aid/CPR*
  - *Deburring*
  - *Safety*
  - *Measuring*
  - *Blueprint reading*
  - *Shop math*
- They focus a lot on quality control and measuring. In particular, they try to reduce internal error rates and maintain a "synchronous manufacturing" philosophy (i.e., doing only the number you need). This philosophy increases the demand for precision.
- The company has "owners" (expert workers) who are in charge of various topic areas like quality control.
- Training is seen as an investment rather than a cost.

Outcomes reported:

- To assess program impact, the HRD manager asks for feedback from learners and supervisors.
- The company has hired a training specialist to continue this kind of employee education after the NWLP grant ends. This specialist works with a training committee which meets quarterly to develop a "syllabus" of available courses. Employees will be encouraged to take approximately two hours of course work per month.
- BOCES will now be seen as one of many education resources.
- Management states that "It makes sense to educate your employees and keep them employed. . . This program is the best deal in town . . ." as it came at the right time when

need, opportunity, and personalities converged.

Key lessons learned:

- Job-related classes are the most effective (rather than "general English.") However, skills must be transferrable across a number of situations rather than being too narrow in their focus. Workers need basic "thinking" skills.
- Workers need to be engaged in ongoing learning activities. The company will now pay for people's tuition in outside classes, but learners also have to be motivated to take advantage of this opportunity. Employees can get college-level education at SUNY Farmingdale in manufacturing technology. (The company communicates with the university to explain manufacturers' needs in particular computer technology, aviation technology, etc.) The company will pay their tuition if they successfully complete their courses.
- Self-motivated employees make the best employees and take the most advantage of the learning opportunities offered by the company. Workers need to be willing to change and grow and be educated to the maximum of their ability. Workers also need to see education as an opportunity to grow, even if it doesn't always lead to a job promotion. (The company is small and has limited opportunities for promotion.) Workers can grow "laterally."
- Communications with BOCES staff were generally good, and BOCES fees are reasonable. Communications might have ben improved a bit if meetings were scheduled more regularly rather than on an ad hoc basis.
- Education providers need to be able to turn around quickly and provide training when it's needed. (For example, the company introduced new computer programs and needed someone to come in and conduct instruction in those programs very quickly.)
- BOCES conducted some "train the trainer" programs which were very useful. The company recognizes the need to train supervisors in reinforcing of workers' skills back on the job. Supervisor input (upfront and on an ongoing basis and via recruiting/selecting workers and signing them up for classes) is vital to ensure an effective education effort. Supervisors also hear about the classes from the workers and thus have a good sense of the classes' value.
- Although BOCES did use pre- and post-tests for such topics as math, it is more difficult to determine whether workers are in fact using what they learned back on the floor. It would be useful to conduct follow-up assessments to see how well workers are using their skills on the job.
- Policy-makers need to really look at what the economy needs when making workforce-related decisions.

Site Profile
Photocircuits Corporation

Name and address of company
Photocircuits Corporation
31 Sea Cliff Ave.
Glen Cove, NY 11542

Contact person
Shirley Durkin
516/674-1068

Type of industry: Manufacturer of printed circuit boards

Make-up of workforce: 90% of workforce is production workers. Currently has about 1800 workers.

When services were provided: Classes were held in 1996 one hour per week (from 3:00 to 4:00 pm), on a 50/50 release-time basis.

Learner profile:

No. 12

Ethnicity/language: Mostly Latino, some Asian

Key features of company (factors shaping company policies and interest in worker education)

- The company has been a manufacturer of printed circuit boards since the 1950s, originally making telephone-related equipment.
- In 1991, the company became more stringent about the English skills of its workers as the business expanded and training and quality increasingly became issues.
- Recently the company was awarded ISO certification.
- The ESOL program was aimed primarily at older workers who had come in before English skills were such a concern for the company.
- The management was concerned about particular uses of English. For example:
  - *In some areas (e.g., fabrication and punch press), many workers are Latino and much time is spent having co-workers help with translating and re-explaining of tasks.*
  - *With its increased emphasis on quality and customer service, management wants all employees to be able to talk with customers.*
  - *Although the ISO certification process allowed the company to use translators in-house, non-English-speakers can't be promoted outside their departments.*
  - *The company gives merit reviews, and workers need to be able to participate actively in the workplace if they are to qualify for raises. (Speaking English is required to participate at high levels.) While workers are also rated in terms of their work ethic and technical abilities, participation (and use of English) are also factored into merit reviews.*

Goals and topics covered:

- The company wanted "general English communication" as the focus of most of the instruction. Advanced-level learners might also focus on job-related English.
- The company also saw the ESOL program as a way to set a "tone" (expectation) that all workers should learn English. (The company also has a tuition-reimbursement policy which includes ESOL courses.)

Summary of activities:

- Management sent out a memo asking supervisors to recommend possible candidates for an ESOL program.
- The instructor (who is well-received) did assessments to determine whether learners are beginning-level or more-advanced. (Current management isn't sure how these assessments are done, however, or whether they were originally requested by the company when the program was set up.)

Outcomes reported:

- Supervisors state that, despite the classes, Spanish-speaking workers tend to "cluster," continue to use only Spanish, and thus aren't using the English that's taught in the classes.
- Management would like to continue the program because it serves as an introduction to English and lifelong learning for workers.

Key lessons learned:

- The company feels that there needs to be more accountability on the part of employees for the time they spend in the program.
- Supervisors haven't been very involved in the program so far. Next time, management would ask supervisors what they would do to improve the program.
- Carpooling, overtime, and lack of childcare are obstacles to learner participation.
- The company does provide opportunities for advancement (e.g., to become lead workers, supervisors, or data-entry personnel) and tuition-reimbursement as incentives for learner participation. The company recruiter also tells limited-English-proficient job applicants about local adult education programs and encourages them to sign up for them because the company now prefers to hire people who already have a fairly good grasp of English.
- Company management sees a value in such education and wonders whether it is feasible to operate the classes 12 months per year rather than take a summer break.

Site Profile
Spellman High Voltage Electronics Corporation

Name and address of company
Spellman High Voltage Electronics Corporation
475 Wireless Blvd.
Hauppage, NY 11788

Contact person
Carol Stewart
Human Resources Manager
516/435-1600

Type of industry: Manufacturer of electronics parts

Make-up of workforce: The workorce is diverse, with a mix of Latino, Haitian, and Vietnamese workers.

When services were provided: Classes met in 1995 about twice a week for ten weeks, with about two hours per session.

Learner profile:
No.: Approximately 30, in two classes
Ethnicity/language

Type of jobs held Participants came from three departments in the general manufacturing area: PC assembly, machine shop, and cable harness

Goals and topics covered:

- Management saw the ESOL classes as a way to:
  - -- *Improve communications between limited-English-speakers and others.*
  - -- *Improve promotability of limited-English-speakers.*
  - -- *Improve the productivity (quality of work, to ensure a defect-free product, etc.) of limited-English-speakers.*
  - -- *Help limited-English-proficient workers pass the written tests done in the company's technical training courses.*

Summary of activities:

- BOCES staff reviewed two company documents, the employee handbook and quality handbook.
- The human resources manager met with two BOCES administrators and one or two BOCES instructors.
- Two sets of classes were set up on a voluntary basis, one for beginners and the other for intermediate level learners. A pre-test was conducted to determine learner skill levels.
- Each class ran for about ten weeks.
- Participants were paid time and a half to attend. (Management isn't sure whether to offer this 1.5 time option again, however.)
- Since the ESOL classes were run, the company has run other types of technical training courses in such topics as ESD (electrostatic discharge), soldering, safety, ISO certification, and component identification. Through these courses, the company has realized that some workers can't pass the written tests which such technical training classes require.

Outcomes reported:

- While management had hoped to see increased and improved use of English by limited-English-proficient workers, most learners still slipped back into using their mother tongue when back at work.
- Management felt the BOCES instructors were well prepared, established a good rapport with learners, and covered a mix of work-related and personal uses of English in the classes.
- The company would like to continue the classes, as it recognizes that many learners will lose what they learned if they don't continue to use it. Company management will meet with BOCES staff for guidance on "next steps" to take to continue to help workers learn and use English.

Key lessons learned:

- Management says that some reading is required in some jobs, but it is not clear how workers are dealing with such reading tasks.
- Management says it might consider taking a different focus if doing classes another time. It would like workers to be more interested. The company is now making English proficiency a more important criterion for hiring and promotions.

Evaluator's comments:

- It appears that management hadn't followed up much on the program after the classes

ended, to see whether and how learners were using what they had learned, how the company could reinforce what had been learned, what further educational activities might be useful, and how to tie the ESOL classes in with other training and promotional opportunities. The BOCES appears not to have followed up with the company to help them think through these questions until now. The two might thus take the time now to re-connect to determine whether BOCES might be of further service to the company.

Site Profile
Todd Products Corporation

Name and address of company
Todd Products Corporation
50 Emjay Blvd.
Brentwood, NY 11717

Contact person
Michael Lamond
Human Resources Manager
516/231-3366

Type of industry: Manufacturer of electronic/electrical switches (for hospital equipment, banks, etc.)

Make-up of workforce: 85% Latino.

When services were provided: January 13, 1997 until April 1997

Learner profile:
No. 81 signed up and about 40 finished a received certificates.
Ethnicity/language: Latino
Type of jobs held : All but three of the participants were production workers. (Those three were supervisors.)

Key features of company (factors shaping company policies and interest in worker education)
- The company manufactures electronic/electrical switches (for hospital equipment, banks, etc.)
- Until 1995-96, using Spanish in the workplace was all right, but at that point use of Spanish became a problem when the company introduced use of operation work sheets which had drawings and instructions written in English. Use of Spanish thus became a quality issue, as it could lead to work slowdowns.
- The local economy now has a large supply of well-skilled Spanish-speaking labor hungry for jobs now that the military industry on Long Island has shrunken. These workers are willing to work for low pay.

Summary of activities:
- BOCES sent the company a solicitation letter in July 1996. The company at that time was

looking to provide training for supervisors and lead people.
- A BOCES representative met with the human resources manager, and then two instructors came in to learn more about the company and the workers.
- A program was established on a voluntary basis. The human resources manager advertised it, and instructors conducted standardized tests to identify three skill levels.
- Content wasn't particularly job-related.

Outcomes reported:
- About 50% of the original 81 participants dropped out, but management isn't sure the cause of the dropouts as no tracking was done.
- The company cites as outcomes improvements in communications and understanding of simple written instructions. Many participants appeared to be using what they had learned back on the job.
- Based on the experience with the ESOL class, the company has now embarked on a GED course with the BOCES. This course is designed for more motivated ESOL students.
- The company sees these classes as an employee benefit, similar to the tuition reimbursement it provides, "to create opportunities for professional and personal development."
- The company is "generally satisfied" with the course. The human resources manager monitored the course via informal talking with course participants.
- Those workers who stuck with the course "loved it and were enthusiastic because it was easy to get access to and they discovered they liked learning."

Key lessons learned:
- The company says that sometimes BOCES staff were hard to contact, as they work only about two days a week. (BOCES states that "even though instructors worked part time, someone was always available to the company to answer questions and solve problems.")
- The company also would prefer if program administrators monitor the educational activities more closely to deal with problems (e.g., dropouts) which might pop up. Company representatives don't want to have to deal with these education-related problems so much.
- The human resources manager would have liked more information about program impact from BOCES staff. He would likely ask for such information in the future.
- The human resource manager feels that the BOCES instructors were "good," bilingual, and well prepared. However, the BOCES staff used the company's equipment (e.g., overhead projector and blackboard), and this sometimes led to conflicts with company training schedules. (BOCES notes that the company "could have informed Western Suffolk BOCES if the equipment was unavailable, and Western Suffolk BOCES would have supplied the necessary equipment or worked around it.")
- The human resources manager might have supervisors submit a vocabulary list to instructors, to make the instruction more relevant.
- Future ESOL courses might be less general and more job-related, according to the human resources manager.

Evaluator's comments:
- Communications between BOCES and company staff seem not to be very strong. The result seems to be a program operating in somewhat of a vacuum within the company, without a clear system of keeping managers and supervisors involved, identifying and reporting outcomes, and linking the ESOL program to other training opportunities.

Perhaps expectations, responsibilities, and communication channels need to be more clearly mapped out before starting programs in the future. BOCES appeared to make real efforts -- through its marketing representative and other means -- to stay on top of its various sites. It is likely that busy employers (whose business, after all, is not "education" per se) are simply unaware of the many things they need to do to ensure a successful, smooth-running employee education program. Workplace educators need to use multiple strategies -- including workshops for employers, guidebooks, meetings, and ongoing outreach by marketing specialists -- to help employers stay involved in cost-effective ways.